

In the claims

1(Currently Amended). A capacitor, comprising:

a first nickel electrode;

a BCTZ dielectric covering a side of the first nickel electrode; and

a second nickel electrode sandwiching the BCTZ, wherein the first nickel electrode, the BCTZ dielectric and the second nickel electrode are contained within a bump of an integrated circuit.

2(Original). The capacitor of claim 1, wherein the BCTZ contains from eighty eight to one hundred atoms of barium for every twelve to zero atoms of calcium.

3(Original). The capacitor of claim 1, wherein the BCTZ contains eighty two to ninety atoms of titanium for each ten to eighteen atoms of zirconium.

4(Currently Amended). The capacitor of claim 1, wherein the first nickel electrode is adjacent to an aluminum lead on ~~an~~ the integrated circuit.

5(Currently Amended). The capacitor of claim 4, wherein the second nickel ~~lead~~ electrode is electrically connected to a second aluminum lead on the integrated circuit.

6(Currently Amended). The capacitor of claim 5, wherein the second nickel ~~lead~~ electrode is a base for solder to be reflowed to form a the bump.

7(Currently Amended). A decoupling capacitor for an integrated circuit, comprising:

a first nickel electrode coupled to an electrical lead of the integrated circuit;
a dielectric applied to the first nickel electrode; and
a second nickel electrode applied to the dielectric and electrically attached to a second electrical lead of the integrated circuit, wherein the first nickel electrode, the dielectric and the second nickel electrode are contained within a bump of the integrated circuit.

8(Original). The decoupling capacitor of claim 7, wherein the dielectric is BCTZ.

9(Original). The decoupling capacitor of claim 7, wherein a portion of the second nickel electrode is deposited on a passivation layer of the integrated circuit.

10(Original). The decoupling capacitor of claim 7, further including an insulator applied to an edge of the BCTZ.

11(Original). The decoupling capacitor of claim 10, wherein the insulator is applied to a portion of the first nickel electrode.

12(Original). The decoupling capacitor of claim 7, wherein a layer of aluminum is applied over the second nickel electrode.

13(Original). The decoupling capacitor of claim 12, wherein a wire lead is attached to the layer of aluminum.

Claims 14-20(Cancelled)

- 21(New) A decoupling capacitor for an integrated circuit, comprising:
- a first electrode;
- a dielectric adjacent to the first electrode; and
- a second electrode adjacent to the dielectric, wherein the first electrode, the second electrode and the dielectric are all contained within a bump of the integrated circuit.
- 22(New). The decoupling capacitor of claim 21, wherein the first electrode is nickel.
- 23(New). The decoupling capacitor of claim 22, wherein the dielectric is BCTZ.